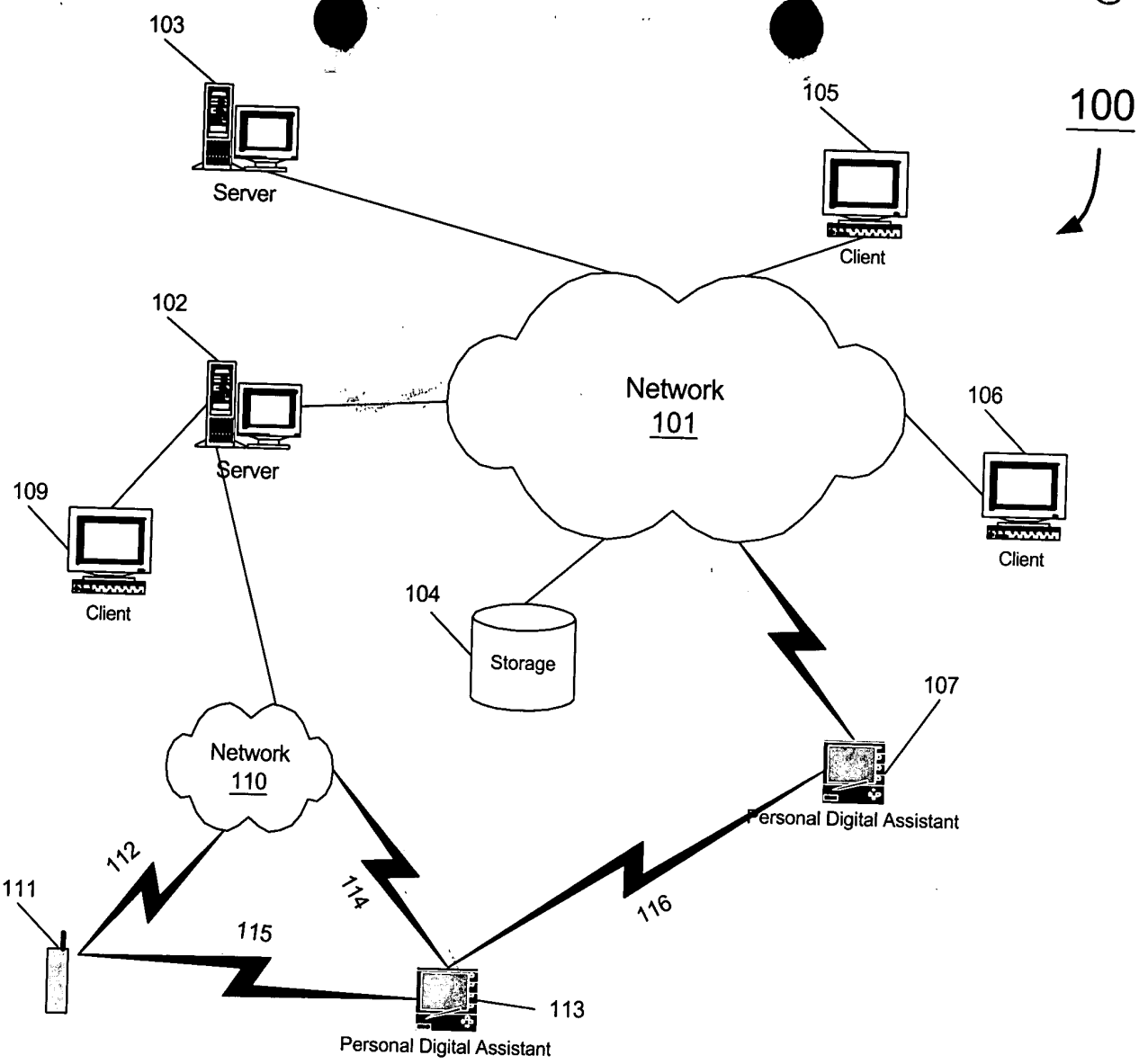
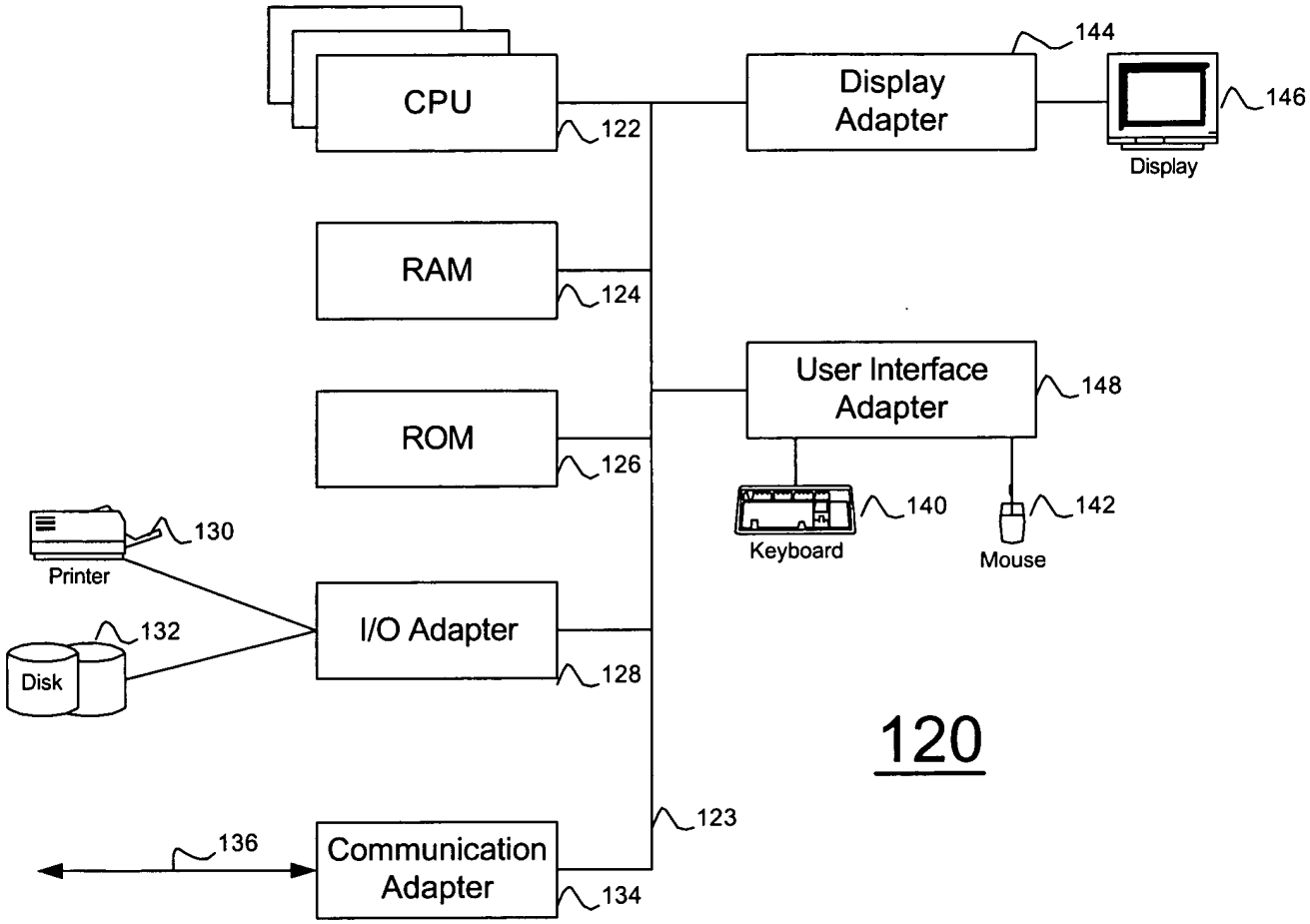
EF409652362US



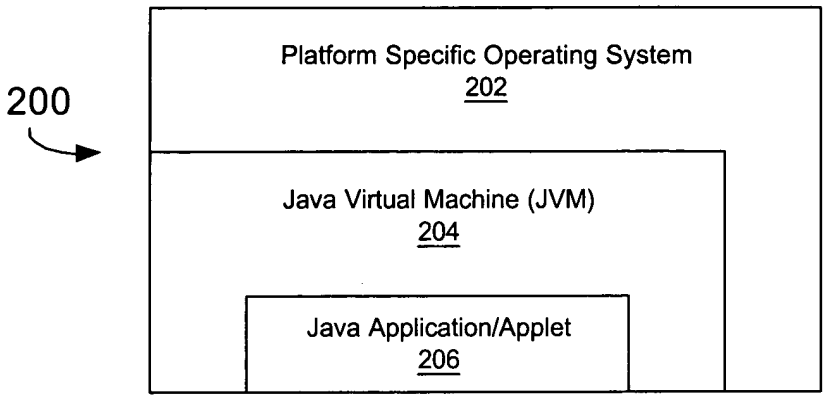
Prior Art

Figure 1A



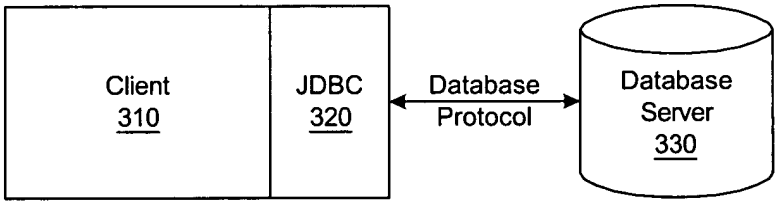
Prior Art

Figure 1B



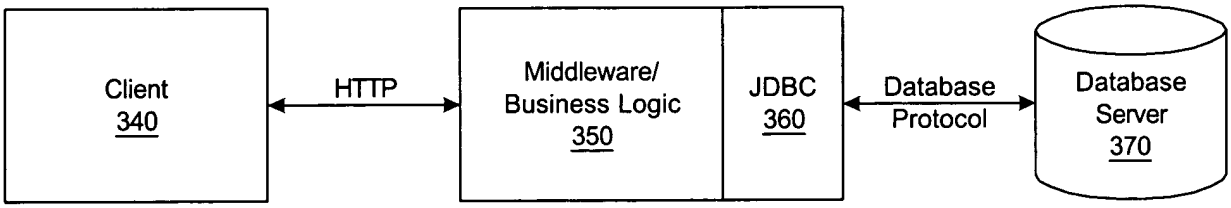
Prior Art

Figure 2



Prior Art

Figure 3A



Prior Art

Figure 3B

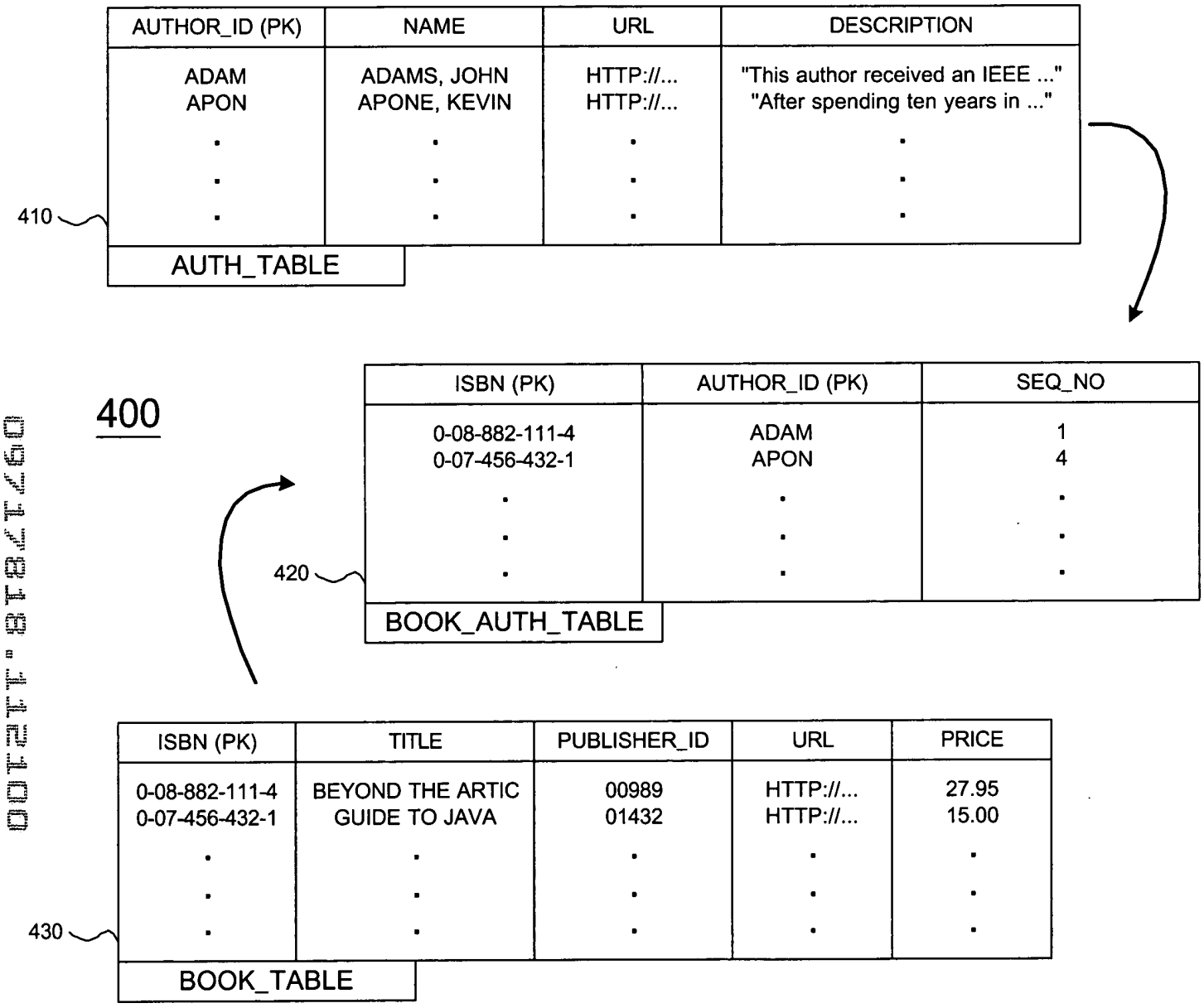

400
410
AUTHOR_ID (PK)
NAME
URL
DESCRIPTION
ADAM
APON
ADAMS, JOHN
APONE, KEVIN
HTTP://...
HTTP://...
"This author received an IEEE ..."
"After spending ten years in ..."
AUTH_TABLE
420
ISBN (PK)
AUTHOR_ID (PK)
SEQ_NO
0-08-882-111-4
0-07-456-432-1
ADAM
APON
1
4
BOOK_AUTH_TABLE
430
ISBN (PK)
TITLE
PUBLISHER_ID
URL
PRICE
0-08-882-111-4
0-07-456-432-1
BEYOND THE ARTIC
GUIDE TO JAVA
00989
01432
HTTP://...
HTTP://...
27.95
15.00
BOOK_TABLE

Figure 4

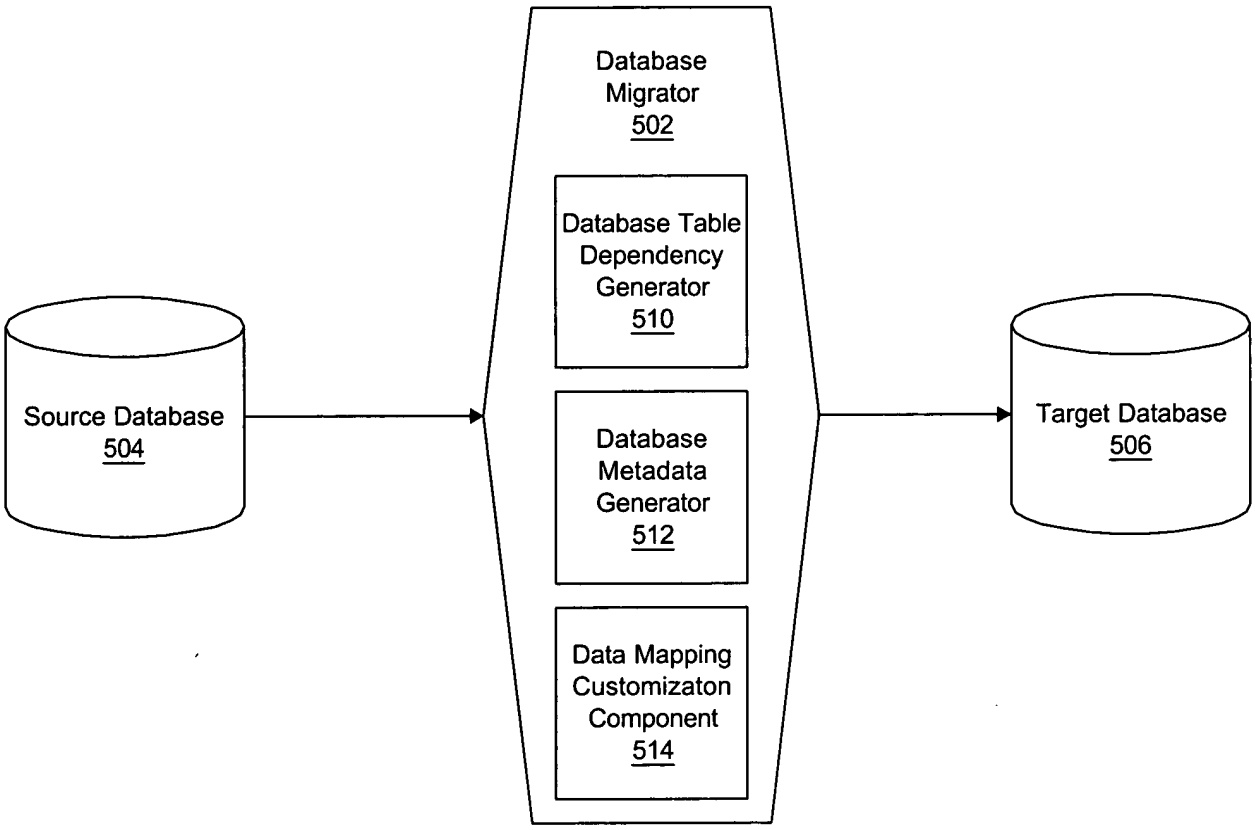

Database
Migrator
502
Database Table
Dependency
Generator
510
Database
Metadata
Generator
512
Data Mapping
Customizaton
Component
514
Source Database
504
Target Database
506

Figure 5A

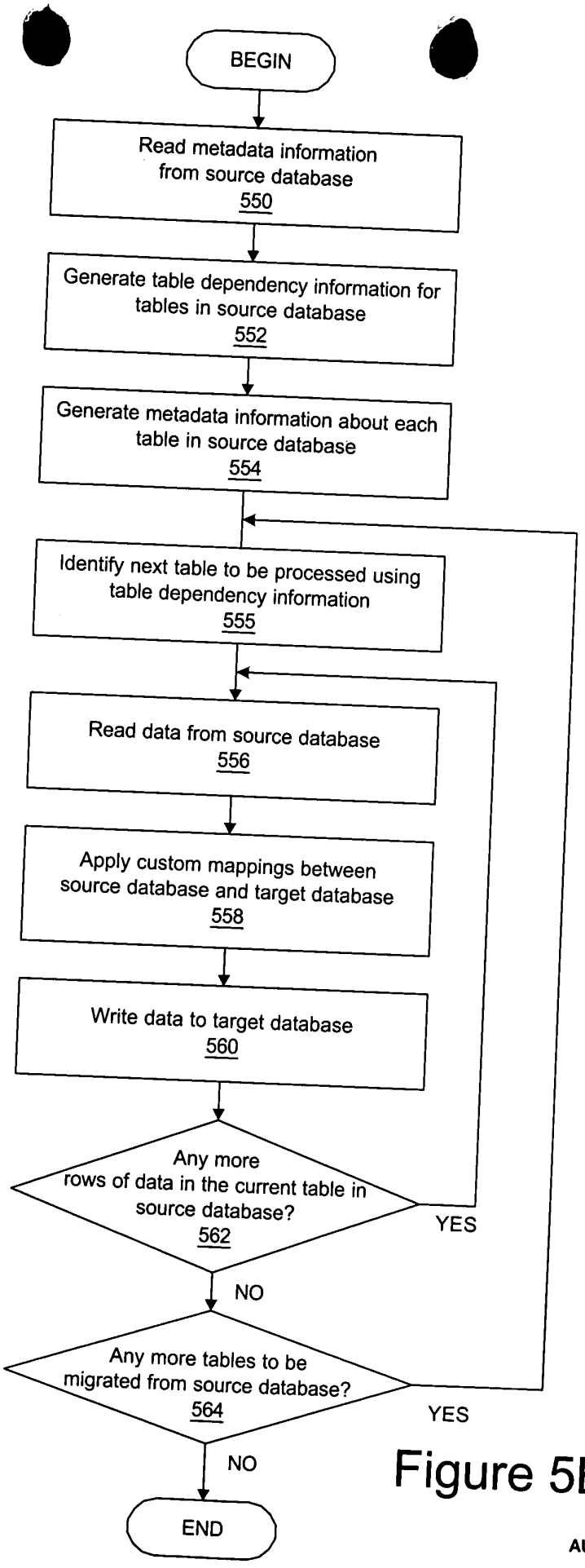

BEGIN
Read metadata information from source database
550
Generate table dependency information for tables in source database
552
Generate metadata information about each table in source database
554
Identify next table to be processed using table dependency information
555
Read data from source database
556
Apply custom mappings between source database and target database
558
Write data to target database
560
Any more rows of data in the current table in source database?
562
YES
NO
Any more tables to be migrated from source database?
564
YES
NO
END

Figure 5B

```
<Table name="[redacted]_TABLE" numattributes="4">
 <PrimaryKey>
  <Field name="AUTHOR_ID" pos="1">
        <Type> VARCHAR2 </Type>
        <Nullable> FALSE </Nullable>
        <Length> 20 </Length>
   </Field>
 </PrimaryKey>
 <Field name="NAME" pos="2">
       <Type> VARCHAR2 </Type>
       <Nullable> FALSE </Nullable>
       <Length> 40 </Length>
 </Field>
 <Field name="URL" pos="3">
       <Type> VARCHAR2 </Type>
       <Nullable> FALSE </Nullable>
       <Length> 1024 </Length>
 </Field>
 <Field name="DESCRIPTION" pos="4">
       <Type> VARCHAR2 </Type>
       <Nullable> FALSE </Nullable>
       <Length> 512 </Length>
 </Field>
</Table>
```

610

Figure 6A

```
<MappingRecord TargetTablename="T_AUTH_TABLE" >
       <SourceTableName> AUTH_TABLE </SourceTableName>
       <Field position="1">
             <TargetFieldName type= "String"> T_AUTHOR_ID </TargetFieldName>
             <SourceFieldName> AUTHOR_ID </SourceFieldName>
             <Truncatable> NO </Truncatable>
       </Field>
       <Field position="2">
             <TargetFieldName type= "String"> T_AUTHOR_NAME </TargetFieldName>
             <SourceFieldName> NAME </SourceFieldName>
             <Truncatable> NO </Truncatable>
       </Field>
       <Field position="3">
             <TargetFieldName type= "String"> T_URL </ClassField>
             <SourceFieldName> URL </SourceFieldName>
             <Truncatable> NO </Truncatable>
       </Field>
       <Field position="4">
             <TargetFieldName type= "String"> T_DESCRIPTION </TargetFieldName>
             <SourceFieldName> DESCRIPTION </SourceFieldName>
             <Truncatable> YES </Truncatable>
       </Field>
       <Field position="5" default="Unknown">
             <TargetFieldName type= "String"> T_LOCATION </TargetFieldName>
             <SourceFieldName></SourceFieldName>
       </Field>
</MappingRecord>
```

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Figure 6B

630

T_AUTHOR_ID	T_AUTHOR_NAME	T_URL	T_DESCRIPTION	T_LOCATION

AUTH_TABLE

Figure 6C

```
<Table Name="AUTH_TABLE">
        <PrimaryKey>
                <Field name="AUTHOR_ID" type="VARCHAR2"></Field>
        </PrimaryKey>
        <Dependent Name="BOOK_AUTH_TABLE">
                <ForeignKey>
                        <Attribute position="1">
                                <Parent>AUTHOR_ID</Parent>
                                <Child>AUTHOR_ID</Child>
                        </Attibute>
                </ForeignKey>
        </Dependent>
</Table>

<Table Name="BOOK_AUTH_TABLE">
        <PrimaryKey>
                <Field name="ISBN" type="VARCHAR2"></Field>
        </PrimaryKey>
        <Dependent Name="BOOK_TABLE">
                <ForeignKey>
                        <Attribute position="1">
                                <Parent>ISBN</Parent>
                                <Child>ISBN</Child>
                        </Attibute>
                </ForeignKey>
        </Dependent>
</Table>

<Table Name="BOOK_TABLE">
        <PrimaryKey>
                <Field name="ISBN" type="VARCHAR2"></Field>
        </PrimaryKey>
</Table>
```

Figure 6B